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(54) Title: LOW TRANS-FATTY ACID FAT COMPOSITIONS; LOW-TEMPERATURE HYDROGENATION, E.G., OF EDIBLE OILS

(57) Abstract: The present disclosure provides low trans-fatty acid fat compositions, methods of hydrogenating unsaturated feedstocks (e.g., oils), and hydrogenation catalyst compositions. One exemplary method involves producing a catalyst composition by heating a nickel-based catalyst to a first temperature of at least about 85° C in the presence of hydrogen and a fat component. An unsaturated feedstock may be contacted with the catalyst composition and hydrogenated by sustaining a hydrogenation reaction at a second temperature of no greater than about 70° C. Some specific implementations of the invention permit the production of partially hydrogenated seed oils with low *trans-fatty* acid contents.(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**Published:**

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